2: Bowen / C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

464 maritime *nakhodas* are having difficulty in getting crews. Many of their sailors, who also operated under the debt system, are now working for oil interests.

464 315 On Bahrein oil began to be developed as early as 1932, just when the pearl industry started its real slide. Oil come late for Saudi Arabia, and it was not until 1945 that the industry absorbed large numbers of native laborers. By then the town populations were so well adjusted that most of the labor came from the desert Bedouins. These jobs with the oil companies at first absorbed the unemployed, but as the oil projects developed they have absorbed more than the unemployed, until now the *nakhodas* of Bahrein, Kuwait, and Saudi Arabia are having an increasingly hard time finding divers; the divers are working for the oil companies and paying off their debts.

The Trucial Coast has yet to have the oil boom wash its shores. Today many men still make the northern trek from the Batinah coast, and the *nakhodas* there have little difficulty in finding 556 pearling crews. But the happiest Arabs in the Gulf are the sheikhs in the oil areas, for even though their revenue from pearls is at an all-time low, they now get their cut from oil, a much more lucrative and reliable commodity.

3: Bowen C-4 (1945-1947) 1951 MK2 Maritime Arabs MK2

MARINE INDUSTRIES OF EASTERN ARABIA

RICHARD LeBARON BOWEN, JR.

THE Persian Gulf coast of Saudi Arabia is desolate in the extreme: in many places one travels along the beach for dozens of miles without seeing a living soul. But there is a sprinkling of old coastal towns, whose inhabitants for the most part gain their livelihood from the sea. Among them are Jubail, long a port of entry for the capital city of Riyadh, 235 miles inland; Dammam, seaport for the Qatif and Safwa oases (a deep-water pier has recently been constructed at Dammam); Al Khobar and Oqair, ports for the great oasis of Hofuf (Hasa). To these have been added of late years Arabian American Oil Company settlements at Ras al Mish'ab (a construction camp and port facilities), Nejma (a refinery and camp), and Ras Tanura (pipeline terminus and cargo wharf).

Fishing

Foremost among the marine activities of the older coastal towns is fishing. Although there are far fewer species of fish in the Persian Gulf than in the Indian Ocean, they are present in greater numbers, particularly the porgies, than one might expect in so warm a body of salt water, and fish form a welcome addition to the diet in a land where food is pitifully scarce.

Fishing methods range from a simple hand line to large and complicated fishweirs. On land the hand line is used mainly by small boys, who, like the small fry of any other country, enjoy fishing. Since there is an almost complete lack of jetties and piers, these young fishermen have to stand on the beach and heave their weighted lines as far as they can (Fig. 2). When the fish are running, these youngsters line the shores, and their catch is sometimes sizable. Hand lines are indispensable on every dhow and are thrown out as soon as the boat is in open water.

A more advanced type of fishing uses the throw net—a circular net about 16 feet in diameter made of quarter-inch-mesh netting. The periphery is weighted with small lead weights, then doubled back toward the center and tied at 12-inch intervals to form a continuous pocket some six inches deep. The fisherman walks in knee-deep water at low tide, holding his net —which he has folded and gathered with the perfection of a parachutist—

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wave action, completely leveled almost all the 10 fishweirs on the Tarut Bay side of the Ras Tanura peninsula. All during the fishing season constant maintenance is necessary (Fig. 13).

Because of its shoal water, Tarut Bay is the only place along the Persian Gulf coast of Arabia where large fishweirs can be built, and one of the best weir locations in Tarut Bay, is off the Ras Tanura peninsula. Things went peacefully among the weir tenders and owners until 1945, when the Saudi Arabian refinery project started in high gear. A deepwater oil-loading pier was built on the Gulf side of the end of the peninsula, and a huge pipeway was run from this pier to the refinery, some eight miles away. The pipeway passed close to several of the Tarut Bay fishweirs, and the considerable fill dumped into the bay changed the shore contour slightly.

The Arab fishweir owners, ever alert to monetary opportunity, brought suits against the Arabian American Oil Company, asserting that the change in contour had reduced their fish catches and that the company's grading equipment had damaged some of their weirs. After the refinery was partly completed in October, 1945, oil was occasionally spilled into Tarut Bay and provided another complaint for the Arabs, who said that the oil contaminated their weirs. These complaints were such an annoyance to the oil-company executives that they instructed their agents to buy the fishweir rights. By 1947 only three of the original 10 weirs were left; the total price paid was about 72,000 Saudi riyals ($22,000). This money enriched the few Arabs who held the rights to the weirs, but to the Arabs in the Qatif Ras Tanura area the sale was an economic blow, for much of the fish supplied to Hasa Province came from the Ras Tanura traps.

Rock Mining

Another marine occupation is the "mining" of dead coral rock. Two types of coral are mined: *faroush* and *hasa*. Faroush is found on flat bottoms in level layers three to six inches thick. Four-man diving crews, operating from shallow-draft dhows[1] 30 to 45 feet long, pry a huge slab loose with iron bars or by simply lifting its edge. A rope is thrown around the slab, and it is hauled to the dhow, where it is broken up into easily handled pieces (Fig. 14). Diving for faroush can be relatively dangerous: I saw a diver with

[1] For a description of the dhows used in the marine industries of eastern Arabia see R. LeB. Bowen, Jr.: Arab Dhows of Eastern Arabia, *Amer. Nepotic*, Vol. 9, 1949, pp. 87–132. The dhows are usually *jalbuts* (see Fig. 3 of the present article), but Bahrein and Kuweit send many *booms* and *sambuks* to the pearl fisheries in addition to the jalbuts. A few small *shoowes* and *battams* are also used by the fishermen (see Fig. 4 of the present article).